

Application Number 09/742,625
Responsive to Office Action mailed October 11, 2006

REMARKS

Prior to the filing of this response, claims 37-39, 41-43 and 50-52 were pending in the application.

In this response, claim 37 as amended is directed to a preferred embodiment of the primer coating composition described on page 6, lines 11-30 of the specification, as well as in the working examples on pages 13-14 (Fast-Set Latex Dow DT 211 NA).

Claims 41-43 are cancelled without prejudice or disclaimer.

New claims 67-70 are added. Claims 67-68 are supported in the specification, for example, on page 6, lines 18-28, while claim 70 is supported on page 7, line 9. Claim 69, which specifies that the monomers in the mixture are (meth)acrylate monomers, is supported, for example, on page 7, lines 4-7 of WO 96/22338 (incorporated by references in the present application on page 6, lines 11-15), as well as in product literature available from Dow Chemical Co. describing the DT 211 NA latexes (example attached).

In view of the above amendments and the following remarks, Applicants respectfully request further examination of the application and reconsideration of the rejections set forth in the Final Office Action dated October 11, 2006, as well as the Advisory Action dated January 11, 2007.

I. Claim Objections

On page 2 of the Advisory Action, paragraph 2, the objection to claim 50 under 37 C.F.R. § 1.75(c) as being in improper dependent form is maintained. The Examiner contends that claim 37 recites all essential steps of the claimed method, and argues that the further step recited in claim 50 cannot be added as a further essential step.

Applicants agree that "consisting essentially of" claims are not strictly closed, and are open to additional steps that do not alter the basic and novel characteristics of the claimed method. Page 10, lines 14-17 state that in addition to the step of applying a thermosetting top coat composition over the chemically crosslinked primer coating, a release composition may be applied to the ease release of the coated composite substrate from the press.

Thus, claim 50 is directed to an embodiment of the process in which the release coating is applied on the top coat to facilitate release from the press. This is merely an optional step of the

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process to ease release from the press, and does not alter the basic and novel characteristics of the process as claimed. Applicants respectfully submit that this subject matter is a proper additional optional step that may be recited in an independent claim with a consisting essentially of transitional phrase.

The Examiner points out that one embodiment of the process the release coat is applied on the primer and in another embodiment the release coat is applied on the top coat. Applicants agree with the Examiner's statement. However, to establish that a claim depending from a consisting essentially of claim is improper, the Examiner must establish that the subject matter of the dependent claim would alter the basic and novel properties of the process. The fact that different embodiments of the process utilize different steps does not, without more, establish that such steps alter the basic and novel characteristics of the process.

The Examiner has not provided any evidence that this step would alter the basic and novel characteristics of the presently claimed process. Applicants respectfully submit that, absent such evidence, that claim 50 properly depends from claim 37. Reconsideration and withdrawal of the objection are respectfully requested.

II. Claim Rejections Under 35 U.S.C. § 103

A. DE '732 and Carmichael

Claims 37-39, 41-43 and 51-52 stand rejected under 35 U.S.C. § 103(a) as obvious over DE 2224732 (DE '732) in view of Carmichael (U.S. Patent No. 2,375,195; hereinafter referred to as Carmichael). It is contended that it would have been obvious to one of ordinary skill in the art to use the quick setting adhesive of Carmichael in the process of DE '732 to provide the presently claimed process, since Carmichael teaches that a quick setting adhesive is suitable for forming priming coats for wood and porous surfaces. This rejection is respectfully traversed for the reasons that follow.

Claim 37 as amended is directed to a preferred embodiment of the process in which the primer coating composition includes 95 to 99 % by weight of an anionically stabilized aqueous emulsion of a copolymer with a T_g of -10 °C to 50 °C, the polymer comprising in polymerized form a polymerization mixture containing two or more ethylenically unsaturated monomers; 0.2

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to 5% by weight of a polyimine compound having a number average molecular weight from 250 to 20,000; and 0.2 to 5% by weight of a volatile base.

The cited references, whether considered alone or in combination, fail to teach or suggest the presently claimed primer coating composition. For at least this reason the present claims are not obvious under 35 U.S.C. § 103(a) in view of DE '732 and Carmichael. Reconsideration and withdrawal of the cited rejection are respectfully requested.

B. DE '732, Carmichael and Helmer

Claims 37-39, 41-43 and 51-52 stand rejected under 35 U.S.C. § 103(a) as obvious over DE '732 in view of Carmichael, and further in view of Helmer et al. (WO 96/22338; hereinafter referred to as Helmer). It is contended that it would have been obvious to one of ordinary skill in the art to replace the primers in Carmichael with the compounds in Helmer since the compounds in Helmer harden quickly. This rejection is respectfully traversed for the reasons that follow.

Further to the discussion above, there is no cited teaching in DE '732 that would have suggested replacement of his aminoplast resin primers with a thermosetting adhesive with the goal of eliminating the primer drying step. There is no teaching in DE '732 that would have suggested to a skilled artisan to eliminate the primer drying step, and no teaching that elimination of this step would have a reasonable expectation of success in forming an impregnated substrate that could be further coated and subsequently applied to a wood product.

In the present case the Examiner has cited no teachings in DE '732, Carmichael or Helmer that would suggest elimination of the primer drying step. For at least this reason the present obviousness rejection under 35 U.S.C. § 103(a) is based on hindsight following review of Applicants' disclosure, and is improper. Reconsideration and withdrawal of the cited rejection are respectfully requested.

C. DE '732, Carmichael, Helmer and van der Hoeven

Claims 38-39 and 50 stand rejected under 35 U.S.C. § 103(a) as obvious over DE '732 in view of Carmichael, further in view of Helmer, and further in view of van der Hoeven (U.S. Patent No. 4,789,604; hereinafter referred to as van der Hoeven).

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Further to the discussion in Section IVA-IVB above, there is no cited teaching in DE '732 that would have suggested replacement of his aminoplast resin primers with a thermosetting adhesive with the goal of eliminating the primer drying step. There is no teaching in DE '732 that would have suggested to a skilled artisan to eliminate the primer drying step, and no teaching that elimination of this step would have a reasonable expectation of success in forming an impregnated substrate that could be further coated and subsequently applied to a wood product (alone or with a paper overlay).

In the present case the Examiner has cited no teachings in DE '732, Carmichael, Helmer or van der Hoeven that would suggest elimination of the primer drying step. For at least this reason the present obviousness rejection under 35 U.S.C. § 103(a) is based on hindsight following review of Applicants' disclosure, and is improper. Reconsideration and withdrawal of the cited rejection are respectfully requested.

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MAR 12 2007**CONCLUSION**

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims.

Please charge any additional fees or credit any overpayment to deposit account number 50-1778.


If questions remain regarding the above, or the Examiner wishes to discuss any aspect of this application, please contact the undersigned.

Date:

March 12, 2007

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UCAR Emulsion Systems Products

UCAR Latex DT 211

UCAR™ Latex DT 211 is a 100% acrylic first-generation fast-dry latex for traffic marking applications. This product features The Dow Chemical Company's patented drying technology that makes it ideal for fast-dry formulations requiring superior "no-tracking" and "dry-through" performance. It also shows superior performance in water soak and water wash-off testing. The outstanding wet adhesion and water resistance allow application under a wide range of climatic conditions without compromising performance.

UCAR Latex DT 211 exhibits the following performance characteristics:

- Superior wet adhesion and water resistance
- Good fast-dry performance
- Compatibility with industry-standard formulations
- Outstanding retro-reflectivity and optical properties

Typical Properties⁽¹⁾

Property	Value
Appearance	White Liquid
Total Solids, % by weight	49.5-51.5
Viscosity, cP	300
Weight per Gallon, lb	8.7-8.9
100 Mesh Residue, g/900 ml, max	0.1
pH Value	10.2-10.4

⁽¹⁾ The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications.

Product Information

[UCAR Latex DT 211 \(411.2KB PDF\)](#)

Starting Point Formulations for UCAR Latex DT 211

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